

## CLINICAL NOTES AND CASE REPORTS

### RELAPSING FEVER\*

By R. C. ATKINSON, M. D.  
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#### REPORT OF CASE

"DR. R. C. ATKINSON then delivered an address to the Placer County Medical Society, taking up the subject of relapsing fever, and reported a case of this disease which occurred recently, in his practice, in a man of fifty-eight years who had been visiting in the Lake Tahoe area and apparently had received the infection while there. In his paper, Dr. Atkinson discussed the epidemiology of the disease and its importance to physicians in California because of the large number of people using the parks and national forests in which the disease is endemic among the squirrels and chipmunks. The first cases reported in California were announced in 1922, by Dr. LeRoy Briggs, of San Francisco, and there is an excellent article on this subject by him in *CALIFORNIA AND WESTERN MEDICINE*, May, 1935. Since Dr. Briggs published a report of these two cases from Polaris on Lake Tahoe, eighty-six others up to January 1, 1935, had been reported to the State Department of Public Health. A large proportion of these cases occurred from two endemic foci; one in the region of Big Bear Lake in San Bernardino County, and one in the Lake Tahoe region in eastern Placer and El Dorado counties. The disease is most common in the months of June, July and August. Males are affected twice as frequently as females, due probably to their greater use of the out-of-doors. The incubation period averages seven days, and is usually under twelve days. The onset is abrupt, with the fever reaching its height within twenty-four hours and continuing for from three to seven days. The patient complains of chills, malaise, generalized aches and pains, sweats and headaches. Aside from a moderate enlargement of the liver and of jaundice, in about one-fifth of the cases, there are no characteristic physical findings. With the exception of a slight anemia, the blood count is usually normal, but may show a polymorphonuclear leucocytosis at the height of the paroxysm. Blood smears taken at the time of paroxysm, either fresh or stained with Wright's stain, will show the organism, which is a *treponema*. Smears taken during the afebrile period are less apt to show the organisms, but citrated blood in normal saline taken from the patient is infectious to mice, and the organisms may be recovered after a few days, if an injection is made into the peritoneal cavity of the mouse, even though the blood is taken several days after the paroxysm. The febrile period terminates after three to seven days, and is followed by an afebrile period of three to seven days, during which time the patient feels well and may be up and around. This, in untreated cases, is fol-

lowed by recurrence of the fever and symptoms, lasting, on an average, for seven days—the attacks tending to become less severe as time goes on. A single injection of .3 grams to .45 grams of neoarsphenamin intravenously terminates the disease at once in 80 per cent of the cases. Subsequent injections of one or two doses of .3 to .45 grams are usually advised. Dr. Atkinson demonstrated the organisms of relapsing fever under the microscope with smears taken from his patient.

"Because of the increasing prevalence of relapsing fever in the Lake Tahoe region, Dr. Atkinson's paper was very timely."

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### HEPATIC CIRRHOSIS WITH ENCAPSULATED PERITONITIS\*

#### REPORT OF CASE

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PURULENT peritonitis as a complication of cirrhosis of the liver is an uncommon occurrence. From a review of the literature, we believe that such a case is of sufficient infrequency and general interest to warrant a brief report.

#### REPORT OF CASE

The patient was a mulatto male, aged 64, whose illness began about six months before entry, with some increase in the size of his abdomen, following a short period of vague digestive disturbances. He was an habitual user of alcohol for a considerable number of years. The remainder of his history was essentially negative.

On physical examination, his abdomen was somewhat distended with fluid. A non-tender, firm liver-edge was palpable above five centimeters below the costal margin. The spleen was not felt. There was no evidence of jaundice. There were distended veins over the lower chest and abdomen, indicating increased collateral circulation. He had an unmistakable hepatic facies. Otherwise, the physical examination and the laboratory studies, including the Wassermann reaction, were essentially negative.

A diagnosis of portal cirrhosis was made; and palliative treatment was instituted, with the use of diuretics.

Three and one-half months following examination, paracentesis was first performed with the removal of 2,400 cubic centimeters of chyliform fluid, containing eleven lymphocytes per cubic millimeter. After a five weeks' interval, the patient was again tapped and 8,600 cubic centimeters of straw-colored, slightly cloudy but not chyliform, fluid were withdrawn, containing 628 leukocytes per cubic millimeter, 58 per cent of which were polymorphonuclear cells. At a third paracentesis, two weeks later, 6,000 cubic centimeters of fluid, containing 6,040 cells with 89 per cent polymorphonuclear leukocytes, were obtained. Paracentesis was attempted three weeks following this, but in spite of a markedly distended abdomen, no fluid was obtained. Two weeks after this, another puncture yielded 8,000 cubic centimeters of thick, foul-smelling, purulent material, a smear of which showed mostly polymorphonuclear leukocytes and bacteria. By culture, organisms of the colon group were grown, including *B. coli*, *B. paracoli*, and *enterococcus alpha*. Ten days later, 1,600 cubic

\* This report of case is taken from the report of the Placer County Medical Society, printed in the current issue. See page 201.

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